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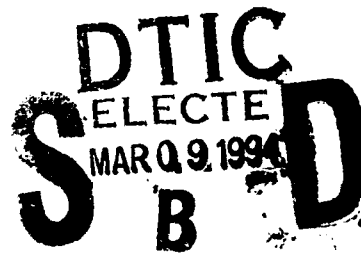
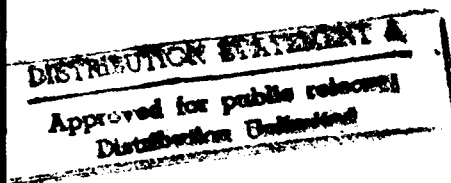
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Panama Canal Beyond the Year 2000

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PANAMA CANAL
BEYOND THE YEAR 2000
LTC WILLIAM T MADDOX

ABSTRACT

The Panama Canal has been a part of the history of the United States since 1903. The construction and operation of the Canal is an extraordinary feat that Americans can point to with pride. On December 31, 1999, this period of history will end when the Canal is turned over to the Panamanian Government in accordance with the treaties negotiated by President Carter in 1977. Will the Panamanian Government be able to run this extremely complicated engineering operation or will the Canal become a monument to greed, corruption and mismanagement? It remains to be seen, but all indications are that the Panamanian Government will be totally unprepared to assume control. Given the evidence that is available today the probability that the Panama Canal will, after December 31, 1999, remain an efficient, dependable waterway for world shipping is small.

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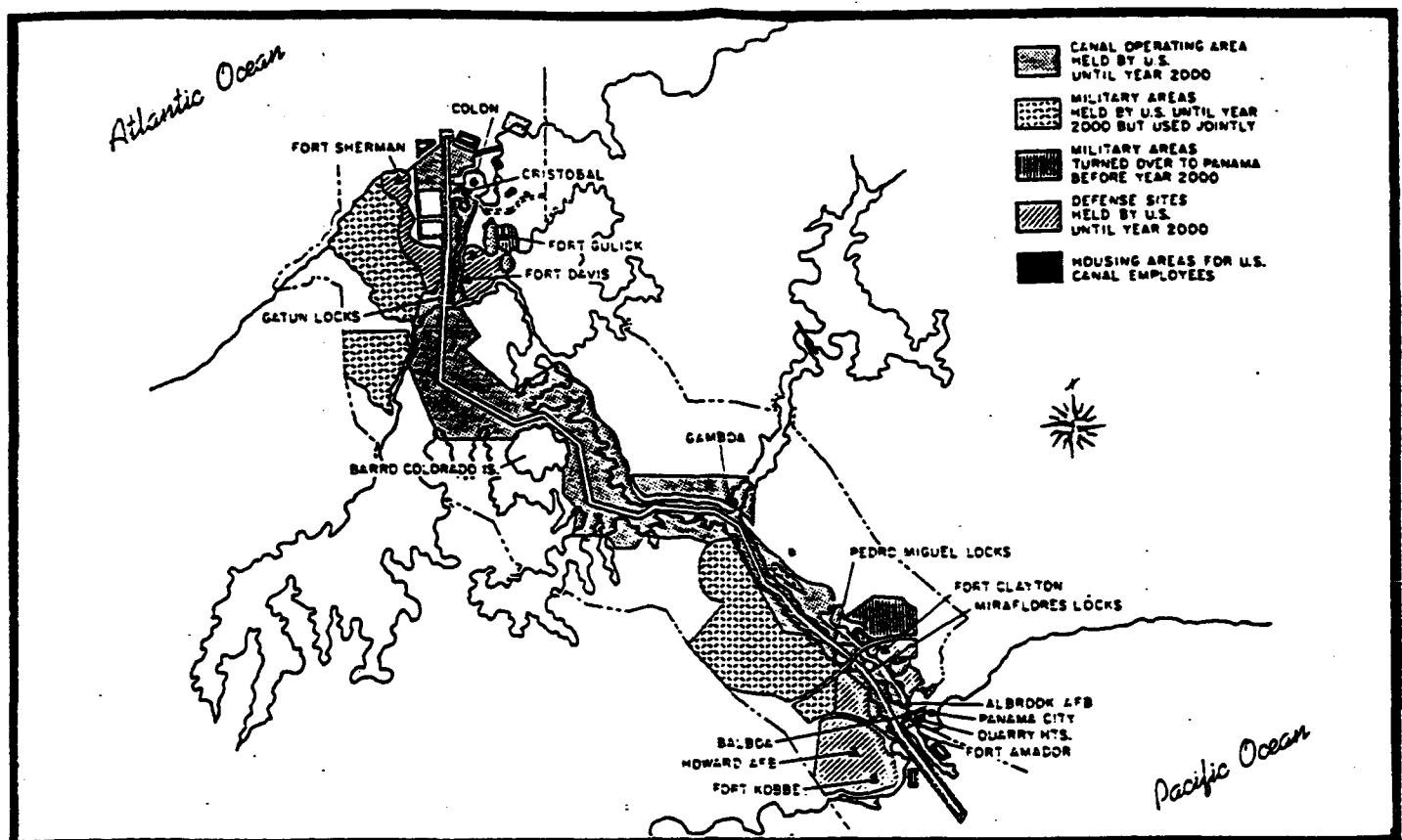
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ABSTRACT

The Panama Canal has been a part of the history of the United States since 1903. The construction and operation of the Canal is an extraordinary fete that Americans can point to with pride. On December 31, 1999, this period of history will end when the Canal is turned over to the Panamanian Government in accordance with the treaties negotiated by President Carter in 1977. Will the Panamanian Government be able to run this extremely complicated engineering operation or will the Canal become a monument to greed, corruption and mismanagement? It remains to be seen, but all indications are that the Panamanian Government will be totally unprepared to assume control. Given the evidence that is available today the probability that the Panama Canal will, after December 31, 1999, remain an efficient, dependable waterway for world shipping is small.

THE PANAMA CANAL AND UNITED STATES CONTROLLED TERRITORY



This map shows the designations of the various areas following implementation of the Panama Canal Treaties. The broken lines indicate the boundaries of the former Canal Zone, which was under U.S. jurisdiction until October 1, 1979.

SOURCE: PANAMA CANAL COMMISSION

THE PANAMA CANAL

Beyond The Year 2000

At noon on December 31, 1999, the U S Government will complete all requirements of the 1977 Panama Canal Treaties by transferring the Canal and all U S controlled property to the Republic of Panama. What will happen to the Canal after the year 2000? Will it continue to operate in an efficient manner, as it does now, or will it fall into a state of disrepair? How strategic is the Canal to U S interests? What are the U S options if the Canal stops functioning at some time in the future?

History

The "ditch" is a term many people applied to the Panama Canal during its construction. It is far more than that. The Canal is a lake-and-lock type channel connecting the Atlantic and Pacific oceans through the narrow isthmus of Panama. The 51.2 mile long canal was constructed by the United States between 1904 and 1914 and actually runs from north to south, not east to west as is commonly believed. A vessel traveling from the Atlantic to the Pacific is lifted 85 feet above sea level by the three locks at Gatun. After traveling Gatun Lake the vessel passes through the Gaillard (Culebra) Cut where large vessels are restricted to one way, daylight passage due to the turns and narrow bottom width of the cut. The locks at Pedro Miguel lower the vessel 31 feet to a small lake. At this point,

the vessel reaches the Miraflores Locks which lower it back to sea level. All the locks consist of two parallel locks that allow traffic to flow in two directions simultaneously. Current transit time from Atlantic to Pacific is 24 hours. (This includes the time waiting in line at the entrance.) By passing through the Canal, a vessel saves 8,000 miles and 20 to 30 days of travel time. The average toll for an oceangoing commercial vessel to transit the Canal during fiscal year 1992 was \$29,365.

Vessels pass through the locks under their own power. Upon arrival at a lock they are tied to four to eight locomotives, or "electric mules," which operate on a cog track mounted on the lock wall. Their primary purposes are to assist in stopping the vessel as it enters the lock and to keep it centered in the lock while it is being raised and lowered. Additional safety features include a hydraulically controlled chain stretched between the walls of the approach to the lock gate. This chain will slow and stop a vessel if it is going too fast to be controlled by the locomotives. There are two sets of gates at the lock entrance to ensure that a vessel that gets away from the locomotives and the chain will not hit the actual lock gate. Once inside the lock, the vessel is raised by fresh water that enters from the 105 openings in the lock floor. Ninety-five percent of the commercial fleet of the world is capable of passing through the locks. (9; 6)

The fresh water that is used to raise the vessels comes from Gatun Lake which is kept at a constant level by a lake and dam complex north of the Canal (Madden)

(See map). A ship passing through the six locks requires 52,000,000 gallons of fresh water from Gatun Lake. This requirement has prompted the United States to place a great deal of emphasis on protecting the rain forests surrounding Madden Lake. Unfortunately, the major share lies outside the control of the Canal administrators. Panama's inability to keep squatters from removing vital timber from the Loma Coba Rain Forest has become a great concern to U S officials running the Canal because the lack of ground cover will eventually result in silting of the Canal. (15) Studies have been conducted to determine the maximum number of vessels that can transit the Canal per day without depleting the available water supply. Based on current rainfall data, the maximum number of transits per day could be 50 compared to the current average of 33 transits per day. (25)

The New Treaty

Prior to 1977, operation of the Panama Canal and its surrounding "Canal Zone" had been carried out under the Hay-Bunau-Varilla Treaty signed in 1903. This treaty gave the U S sovereign rights to the Canal and a surrounding zone 10 miles wide "in perpetuity." (22; 107) This treaty has been modified over time, but remained as the basis for U S presence in Panama until 1977.

Early in his presidency, President Carter decided that a new agreement with Panama was needed. The result of this was a treaty, signed by President Carter and Panamanian President Omar Torrijos in 1977, which provided for the return of

all property, the turnover of the Canal and withdrawal of all U S military personnel by 12 noon, December 31, 1999. At that time, the Panamanian Government will assume complete control of the administration and operation of the Canal.

There has been, and will continue to be, many debates over the rationale behind giving the Canal to the Panamanians. One of the little publicized reasons for the United States' action may have been the threat, made by General Torrijos, to destroy the Canal. In early 1977, when testifying before a Congressional Committee, Admiral Thomas H. Moorer (Ret) stated that the Panamanians would destroy the Canal if we did not give it up. (27; 1) On the other hand, in October 1977, President Carter stated there were no threats, implied or otherwise, concerning damage to the Canal if the treaties were not approved. (27; 11) Following the April 1978 Senate debates on ratification of the treaty, General Torrijos stated that he would have blown up the Canal if the Senate had not approved the treaty. (27; 472) This threat was later confirmed by, then Ambassador to Panama, William J. Jorden. (11; 625) It was also confirmed by former President Carter in his 1982 memoirs, when he stated that "the Canal was in serious danger from direct attack and sabotage unless a new and fair treaty arrangement could be forged." (27; 11) This information was not given to the American public or the U S Congress. Regardless of the reasons for a new treaty,

the fact remains that the Canal will become the property of the Panamanian Government as of December 31, 1999.

Current operations

During 1991, 12,763 oceangoing vessels transited the Canal. The total revenue from these and transits by smaller vessels was \$368.0 million. An additional \$138.0 million in revenue was gained by the sale of electric power, navigation fees and provision of other services. From this revenue, the Panamanian Government received \$88.4 million in payments. These payments included a \$10 million yearly annuity, \$10 million for providing public services (police protection, trash pickup, etc.), \$67.6 million as their share of the tolls and \$0.8 million in profit. The remainder of the revenue was used for Canal operations, capital improvements, maintenance and repair (\$417.6 million). (21; 6)

Decisions concerning the financial operations of the Canal are currently being made by a U S agency with a binational Board of Directors. The Panama Canal Commission (PCC) proposes a budget that includes allocations for wages, maintenance, repair and operation of the Canal. This budget is based on expected revenues in the coming year. No appropriated U S funds are involved in the operation of the Canal since the Canal must, by law, be totally self sufficient. Throughout the history of the Canal, there have been years when the revenue failed to cover expenses. The PCC is then obligated to cover these losses from the

following year's revenue. These losses have been as much as \$8.0 million in some years. In order to compensate for the losses the PCC has, in the past, raised the toll it charges ships for transiting the Canal. The last such raise (9.9%) was in October 1992 and was necessary to cover a \$3.2 million loss in FY 1992 as well as a projected loss of \$18 million in FY 1993. Predictions are that toll increases of 2 1/2% to 3% per year may be required to keep pace with inflation if traffic growth stays low. (25)

The fixed costs of operating the Canal comprise the major share of its budget. Of over \$500 million in revenue, only \$130 million is available for discretionary use; the remainder goes to pay fixed costs (salaries, benefits, payments to Panama, contracts, etc.). Most of the variable costs are in the area of maintenance and repairs. It is this money that could easily be "raked off" by the Panamanian Government to the detriment of Canal operations after December 31, 1999. Without a sound maintenance and repair program, the Canal would become useless in a very short period of time.

Of course, if this happens to the Canal, a valuable source of revenue would be lost to the government. Assuming the government puts back enough money to keep the Canal functioning at some level, to what degree would the shippers, who now use the Canal, put up with broken down machinery or unsafe conditions that lengthen their time to traverse the Canal? According to a Panamanian shipping agent, the current perception of the world shipping community is that the,

"efficiency of the Canal has dropped consistently over the past 10 years and the service is deficient." (19) The basis for this shipping agent's complaint is primarily the port facilities at each end of the Canal rather than the operation of the Canal itself. Some companies have gone so far as to move their operations from Panama to Jamaica, Miami or Colombia due to the deterioration of these port facilities. (5) To date, shippers have tolerated a decline in service, but they are expressing concern about Panama's ability to run "one of the most complex engineering enterprises in the world." (19)

If these conditions continue to deteriorate, it would be easy for the shippers and buyers of the world to change the world trade patterns. A comparable example of this occurred when the Suez Canal was put out of operation by the Arab-Israeli Wars. Buyers rapidly adjusted their markets to countries not affected by the closure and shippers selected the safest and most economical trade routes which bypassed the Suez.

Strategic Importance

Throughout history, the strategic military value of the Canal has been confirmed on numerous occasions. World Wars I and II, Vietnam and the Cuban Missile Crisis have emphasized the usefulness of the Canal to rapidly move military goods and warships from one ocean to another. Does the Canal still have the strategic military value it did then? Indications are that the Canal's

importance has diminished to the point where it would have only marginal strategic value in the future. (19) (26) With the proposed reductions in the strength of the U S Navy, even in the event of war, there would be little or no increase in the use of the Canal to move Naval forces from ocean to ocean. In more recent conflicts, the major use of the Canal has been for movement of military goods, not warships. Movement of these goods can be accomplished by alternate means within the United States. The only major strategic military loss is Howard Air Force Base, the only airfield in Southern Command (SOUTHCOM). Without this facility, the movement of supplies, arms, ammunition and military vehicles into Panama for any future military actions would be extremely difficult.

Prior to the invasion of Panama by the United States (Operation "Just Cause") and the elimination of Noriega as the head of the Panamanian Government, some Congressmen commented about the U S right to ignore the provisions of the 1977 Treaties. Now that Noriega is gone, this rhetoric has died down and the Treaty Implementation Plan is being closely followed. There are still people, including General Paul F Gorman, former Commander of SOUTHCOM, who believe that the U S should attempt to change the treaty to allow for a U S military presence beyond the year 2000. (8; 345) This point has been intermittently made by others since the 1979 passage of the Treaty Implementation Acts. According to Secretary of Defense, Richard Cheney, in a February 1992 interview, there are no ongoing negotiations that would change the actuality that, under the treaty, all U S troops

would be withdrawn by December 31, 1999. This fact was reiterated by U S Ambassador to Panama, Deane Hinton, in an April 1992 press release. Given the present draw down in the U S Armed Forces, I see little chance that Congress would want to renegotiate the treaties to allow a continued troop presence beyond the present treaty deadline.

The 1977 Treaties state that the U S can re-assume control if the neutrality of the Canal is threatened. Without the forward bases and troops stationed in Panama, another "Just Cause" type exercise would be significantly more difficult. Effective protection of the Canal from a guerilla action would require a large number of troops guarding vital points on the Canal. This protection would have to include all the locks, the electric transmission lines, the Canal entrance and exit and the water distribution equipment from Madden Dam. Simple mining of the channel would effectively shut down the Canal by forcing shippers to seek other, safer, means of moving their cargo. Even if the United States could obtain approval for such an action from the Organization of American States and from the U S Congress, there seems to be little chance that a military takeover of the Canal could succeed in keeping it operational.

Is the Canal still a factor in the economic strategy of the United States? From an economic standpoint, only 15% of the U S imports and exports go through the Canal. (10) The dominant trade route through the Canal is from the East Coast of the U S to the Far East and accounts for 38.6% of the yearly Canal tonnage.

(21; 9) Obviously, this freight could be shipped by other means from coast to coast within the United States. The cost might be higher and some West Coast ports would have to be expanded to handle the increased traffic.

Latin and South American Countries would be the only nations to experience a negative economic impact if the Canal were to close because twenty percent of the total tonnage carried by the canal originates in Latin and South America. Some South and Latin American Countries ship as much as 40% to 50% of their exports through the Canal (Ecuador, Chile, Peru). Chile, for example, would be unable to ship fresh fruit, its largest export commodity, to U S markets in a timely manner. How important is this to the United States?

According to an expert on international relations, "The U S government now recognizes, after nearly a decade of tacit denial, that Latin America's economic downturn is the fundamental problem that needs to be addressed if progress is to be made on strengthening democracy, fighting drugs and protecting the environment." (14; 41) The small amount of foreign aid money that has been appropriated to combat this downturn has been spent in the area of helping nations establish stronger industrial or agricultural based economies. The lack of low-cost trade routes would have serious impact on the ability of these countries to import much needed food and, in return, export agricultural and manufactured goods to pay their bills.

Panamanian Control

Not all Panamanians favor total U S troop withdrawal in 1999. A delegation of Panamanians headed by Arnulfo Escalana, a parliament deputy and advisor to the president of Panama, came to Washington to explore the possibility of renegotiation of the troop withdrawal agreement. This "unofficial" delegation met with little success because both the President (Endara) and the Foreign Minister of Panama dismissed the idea of renegotiation. (1) President Endara stated that, "If the Panamanian people want renegotiation, they would have to elect a new government in 1994 willing to do so." (13) A recent poll, which included only 932 people, indicated that 63 % of the Panamanian people wanted a continued U S troop presence beyond the year 2000. (16) The validity of this poll is questionable because no information was given as to how these 932 people were selected.

Most of the desire for a continued U S troop presence has to do with economics. Base workers want to renegotiate because "it would give us job stability at least until the government develops an economy that can absorb us." (3) "An estimated 75,000 Panamanians rely on income from the bases and businesses serving the bases." (16) Panamanians working on the bases earn U S minimum wages of \$4.35 to \$18 per hour compared to a national minimum wage in Panama of 87 cents per hour. The total contribution to the Panamanian economy is between \$250 million and \$350 million per year. Also, the loss of jobs would add to an unemployment rate that is already 18%. This loss, according to Leo

Gonzalez, a Panamanian Legislator, would be "harsh for a nation with a government budget of only \$2.4 billion." Mr Gonzalez also wants to renegotiate the treaties because he believes that Panama cannot run, maintain or defend the Canal. (23) He may be correct in his assumption concerning the operation and maintenance of the Canal.

Former Canal property, now under the control of the Panamanian Government, has deteriorated to the point where it is no longer useful. For example, the railroad, which was turned over to Panama in 1979, is in ruins. Trains used to run across the isthmus on a regular basis carrying passengers and cargo. "After the railroad was returned to Panama the company's payroll grew at least fivefold, leaving virtually nothing for maintenance and leaving the company broke." (16) In the past, the trip across the isthmus took 75 minutes; it now takes 3.5 hours if the train runs at all! (16) The United States has declared the entire rail system unsafe for passenger traffic because the wood ties under the tracks are so rotten. The rolling stock sits on sidings totally overrun by the jungle. In defense of the Panamanians, it should be pointed out that the railroad was being subsidized by the PCC as a convenience for its employees when it was turned over to Panama.

This same disregard for maintenance and repair can be seen in the buildings which were turned over to Panama. These building are "sliding toward dilapidation" according to an unnamed Canal Official. (15) During a fact finding trip in January 1993, I personally observed vacant, vandalized buildings that have

gone unused since their turnover. One PCC official told me of a case where the air-conditioning unit quit working in one of the large, administrative buildings that had been turned over. Rather than fix the problem, the Panamanian occupants broke out the windows to get ventilation. The lack of maintenance and repair programs is also obvious in other areas within the former Canal Zone. Many stop lights no longer work, streets are full of holes, street lights don't work, drains are clogged and vegetation is uncut. General Colin Powell, Chairman of the US Joint Chiefs of Staff, expressed concern that the facilities the United States leaves behind will be looted and destroyed within a few months if the Panamanian Government does not have a plan to control and maintain these facilities. (15) The plan should include, in addition to control and maintenance, the sale or lease of the facilities in order to make them profitable and not a drain on the budget of Panama. In the past, turned-over facilities have been given by the government of Panama to agencies without any funds to maintain them.

Currently, there is no one in charge , or even a plan for the use, of the returned facilities. In order to correct this, in April 1991, President Endara named an eleven member commission to study the future use of the US bases. This commission met once and then failed to gain a quorum for its second meeting. Subsequent meetings produced a report stating that the "planning must move swiftly to keep the Canal running and out of the hands of politicians who might

use it as a source of income, taking money that should be spent on maintenance."

(16) In March 1992, President Endara formed another committee to plan the promotion and administration of the Canal after its turnover. So far, there has been little evidence of progress from this committee. Currently, the Panamanian legislature is attempting to pass a law that would set up a commission to control the returned property. I was told that this attempt is going very slowly because each faction of the government wants to ensure that it gets its "slice of the pie."

This lack of planning, along with the obvious deterioration of the facilities, has caused great concern among the shippers of the world. As a part of the report mentioned above, the committee found "great uncertainty and even distrust" among foreign cargo lines and countries over Panama's ability to operate the waterway.

(16) Interviews with shipping agents confirm that the condition of the ports and the railroad are viewed by the shippers as indicators of things to come. (19) These shippers must plan for their requirements five to ten years in advance and decide whether to build ships to fit in the 110 ft wide x 1000 ft long locks of the Canal or build ships which would be suited to an alternate route. According to one agent, "eight years is nothing" when it comes to planning for future shipping. Other shipping analysts have stated that the way the Panamanian Government deals with the ports will be an indication of how serious it is about avoiding similar problems in managing the Canal itself after 1999. (28) My personal observations of the port facilities at Balboa, during my January 1993 trip,

confirmed the conditions as reported by the shippers. The docks look like junk yards, the wooden bumpers on the piers have rotted away and the equipment for off loading cargo sits rusting. Mr Holmes, Operations Manager for C D Fenton, one of the largest shipping agencies in Panama, stated that his customers may decide to phase out use of the Canal and use the U S rail system. (19) His customers include Mobile, Dole and Star Shipping.

The lack of planning on the part of the Panamanian Government will also have a definite impact in the area of personnel required to operate and maintain the Canal. Future personnel problems may be the key to the demise of the Canal. As of December 31, 1999, approximately 2,500 of the most senior pre-treaty Canal employees will be eligible to retire under the U S retirement system. (Total employment is 8,000.) Everyone I spoke to in this category will retire because their U S retirement greatly exceeds the \$1,500 maximum monthly retirement allowed by the current law in Panama. Their retirement pay is also nontaxable under Panamanian law. The Panamanian Government has made no plans to replace, or retain, these individuals. (25)

It would take an amendment to the Panamanian Constitution to allow these workers to continue to work for the Panamanian Government and draw their U S retirement. A constitutional amendment will also be required in order to keep the current Canal pay scales since they are based on U S wage rates, not Panamanian Government wages. Most Canal employees earn from 40% to 300% more than other

Panamanian citizens doing comparable work. (25) Will the Panamanian Government want to create a special class of people within its government? This remains to be seen. There is an urgent requirement for a personnel system to be approved and implemented prior to the year 2000.

The urgency for a sound personnel system can be seen in the events that occurred when the ports and railroad were turned over to Panama in 1979. The turnover included all the personnel who operated and maintained the facilities. One month after turnover, there was a general strike by the personnel because the government wanted to reduce the PCC salaries to Panamanian standards. After negotiations on the wage issue and promises by the government to provide health and retirement benefits, the strike was terminated. The former strikers failed to receive the promised benefits and were harassed on the job until they quit. Within one year after turnover, all of the original personnel were gone. The condition of these facilities shows what an impact this had.

The Future

After the year 2000, the Panamanian Government, or its equivalent to the PCC, will decide how the total revenue from the Canal will be spent. Will the Panamanian Government be tempted to use the revenue from the Canal to prop up its economy at the expense of Canal operations and maintenance? Will the highly paid, skilled workers who operate the Canal be retained under these conditions or

will the government replace them with "political" patronage jobs? Even though President Endara has stated that the Panama Canal will have autonomous administrative and financial structure from the Panamanian Government, there are many who believe it will not. (20) The previously mentioned railroad and ports are the prime examples shippers use when discussing the future operation and maintenance of the Canal. Shipping agents point out that Panamanian officials neglected the ports "completely - little new equipment, little investment, corruption all over the place." (28) The ports are in an advanced state of decay due to lack of maintenance. Mr. Holmes goes so far as to say that "maintenance is a word the Panamanian Government has never heard of." (19) American sources fear that the cash-strapped Panamanian Government might try to extract as much revenue as possible from the Canal at the expense of maintenance and the need to keep skilled workers. (5)

There are a few who believe that world pressure will be enough to ensure that the Panamanians operate the Canal properly. Accordingly, the Panamanians want to be viewed as "capable" of running such a large enterprise in order to attract outside investment in their country. Large shippers, such as the Japanese, may be able to bring their economic influence to bear if Panama does not operate the Canal efficiently. There is even talk of contracting out the operation of the Canal to a foreign corporation. This option does not appear, to me, to be viable since it would amount to an admission on the part of the Panamanian Government that they

are incapable of operating the Canal. It would also bring into the country another contingent of "foreigners" which is what the Panamanians are trying to eliminate. It appears that if "prestige" is an issue with the Panamanian Government and the Panamanian people, the Canal will continue to operate at some level of efficiency -a level which may or may not be acceptable to the world shippers.

The form of government in Panama, and its stability, will also have a big effect on the attitude of the shippers toward the Canal. During my interviews in Panama, I asked if there could be a return of a powerful dictator such as Noriega. In every instance, both U S and Panamanian personnel stated that there is a distinct possibility such an event could occur. These same individuals based their answer on the fact that there is no "nationalism" in Panama; it is "every man for himself." Another dictatorship in Panama would, more than likely, spell the downfall of the Canal.

Where Do We Go From Here?

A tripartite committee, consisting of the United States, Japan and Panama, was set up to study the feasibility of a new sea level canal within the boundaries of Panama. In 1988, the estimated cost of constructing a sea level canal was placed at approximately \$20 billion. It appears that building another canal in Panama would be a poor investment because it would take too long to recover the initial investment and would render the existing canal useless.

One idea that has merit is to construct a third set of locks (larger than the existing locks) in the present canal and widen the 8-mile Gaillard Cut. Currently there are no plans to finance a third set of locks. (The cost is estimated to be \$8 to \$10 billion in 1988 dollars.)

The PCC Board of Directors has approved a 22-year program to straighten and widen the Cut. (21; 1) Contractors began the first phase (removal of bank material to the waterline) in 1992. After the contractor finishes a section, the PCC dredges will complete the underwater portion of the widening. The PCC undertook this project to alleviate a projected pinch point in Canal capability and to show the world shippers that Panama is serious about improving the Canal. (25) It should be noted that the completion of this project is dependent upon the availability of operational PCC dredges and the skilled manpower to run them, neither of which will be available if the Panamanian Government fails to retain these skilled personnel and fails to repair and maintain the equipment after December 31, 1999. The estimated cost of contracts and additional equipment for this project is \$200 million, all of which must be financed from Canal revenue or outside investment.

In spite of the need for planning for the administration of the Canal, the Panamanian Government is at a standstill. U S personnel involved in this effort state that the current Panamanian Government does not believe it has the "right"

to do future planning because it is not a government elected by popular vote of the people. (26) Elections are scheduled to be held in 1994 and again in 1999. Hopefully, the 1994 elections will yield a government willing to plan for operation of the Canal and control of the facilities returned by the United States. There are many who believe that it will take a crisis, such as the start of the withdrawal of U S troops, to get any action from the Panamanian Government. Everyone I spoke to agrees that if this government does not properly plan, or chooses to wait until the elections of May 1999, there will, in all probability, be disaster at turnover.

What do we want from the Panamanian Government? What are our bottom line interests in the Canal? I believe we are doing everything possible to ensure the continued, efficient operation of the Canal after the year 1999. At this point it is totally up to the Panamanian Government to decide if the Canal remains operational. If the Canal fails, the effect on our military strategic interests is negligible. The only effect appears to be the economic hardship the lack of a functional canal would have on some Latin and South American Countries and the displacement of port-related jobs from one area of the United States to another. (29)

I see the use of political or diplomatic pressure as the only means of ensuring that the Canal remains a neutral and viable traffic route. It would be impossible to justify military intervention into the affairs of Panama if the Canal is closed due to "mismanagement" by the Panamanian Government. Providing financial aid to

Panama for running the Canal is a possibility, but such a proposal would have a tough time gaining approval in the U S Congress or acceptance by U S citizens because many people believe we should never have given the Canal to Panama.

If we allow events in Panama to take place without U S involvement, would it lead to loss of the Canal? It is hard to say at this time. Between now and the year 2000, the PCC will have trained a Panamanian work force to operate and maintain the Canal. This training program has proceeded to the point where almost 90% of the current Canal work force is Panamanian. There seems to be little doubt that the Panamanians can run the Canal; the question is, "can Panama?" (24)

Given the facts as they appear at this time, the future U S course of action should be to allow the Panamanian Government to run the Canal without interference after December 31, 1999. Until then, the PCC should provide whatever assistance is required to train the work force and help the Panamanians set up their equivalent to the PCC. But, the United States needs to be as forceful as possible concerning the establishment of a democratic form of government and the separation of that government from the operation of the Canal. As a former ambassador to Panama put it, "The future ability of the United States to use the Canal to its greatest advantage will depend primarily upon the internal political environment of Panama." (18; 213)

If the Canal becomes non-operational, as I believe it will after December 31,

1999, then the United States should offer assistance to correct the problems. This assistance should be technical and managerial in nature and should be paid for by the Panamanian Government. Such a cooperative effort may serve to ensure that the government of Panama remains responsive to the current, ongoing, democratic reforms.

An Area For Further Study

As I conducted research for this paper, it became apparent to me that the United States could be the benefactor of any move away from the use of the Panama canal by the world shippers. Many articles addressing the future of the Canal include comments concerning the use of U S railroads to move goods from coast to coast. This alternative appears to be cost effective should the Canal cease to function at a level acceptable to the shippers. In actuality, "the increased use of trains double-stacked with containers to transport goods across the continental United States, did cut into the Canal's business in the 1980's." (28)

This possibility is developed further by Rear Admiral Stanley S Fine (Ret) in the November 8, 1992 edition of American Sentinel. Admiral Fine states the United States is "ideally positioned to facilitate east-west/west-east world trade - it is the shortest, and most politically stable, distance between the hemispheres." (2) There would be tremendous potential for economic development

along, and at both ends of, a high-speed land bridge across the United States according to Admiral Fine. This idea appears to me to merit further study for both freight and passenger service.

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INTERVIEW QUESTIONS FOR MR MICHAEL RHODE

1. Do you have a copy of the FY 1992, PCC report?
2. Do you have a copy of the recent Tripartite report? (Reaction?)
3. How is the planning for turnover of the Canal going?
4. Is the Panama Government participating?
5. What are the predictions for Canal usage after the year 2000?
(increase or decrease)
6. What increase in tolls will be required between now and 2010 in order to keep the Canal solvent?
7. How long will it take to widen and straighten the Galliard Cut?
8. Are there any future plans for a third set of locks? (If so, how financed)
9. Will the Panamanians follow a good maintenance and repair program or will they utilize the Canal revenue in other places?
10. Will the Canal become a source of political patronage jobs?
(If so, what will be the result)
11. What do you see as being the greatest problem the Canal will face after the year 2000?

INTERVIEW QUESTIONS FOR ADMIRAL JEROME F SMITH JR

1. In view of the reduced size of the future Navy does the Panama Canal become more important for movement of ships from one coast to another?
2. What is the future of SOUTHCOM?
3. How hard would it be to militarily and politically support another "Just Cause" type action without the base support in the area?
4. Could the US politically and militarily defend the Canal if we had to retake it by force?
5. Do you think the government of Panama will continue to put money back into the Canal for maintenance, or will they use the revenue to prop up their economy?
6. Are they capable of supporting the income fluctuations that have been experienced by the Canal throughout its history?
7. Will the capabilities of the Canal be degraded by "political" jobs rather than utilizing qualified personnel?
8. Should the U S continue to pursue the development of another canal? (If so, where?)
9. What do you think is the future strategic value of the Canal?
10. Do you see any technological developments in the future which could impact positively or negatively on the strategic importance of the Canal?